

**IN THE SPECIFICATION:**

Please amend the specification as follows:

Page 16, line 13, change "FIFO" (ending in the numeral zero) to --FIFO-- (ending in capital letter "O").

Page 19, line 13, change "the" (second occurrence) to --The--.

**IN THE CLAIMS:**

Please cancel claims 1-6 and 15-18 without prejudice.

Please amend the claims as follows.

1  
7. (Once amended) [The] A method of [claim 1,] performing a conditional vector  
output operation in a processor, the method comprising:  
receiving electrical signals representative of an input data vector;  
generating electrical signals representative of a condition vector, the number of values  
in the input data vector being equal to the number of values in the condition vector, values in  
the input data vector and in the condition vector being in one-to-one correspondence with one  
another, and each value in the condition vector being a result of evaluating a predetermined  
conditional expression using data corresponding to a value in the input data vector; and  
generating electrical signals representative of an output vector containing values in the

input data vector for which corresponding values in the condition vector are equal to a predetermined value;

wherein generating the output vector includes[:]

maintaining a running index indicative of a last-added value in the output vector;

for each value<sub>i</sub> in a group of values from the input data vector<sub>i</sub> corresponding to a condition value in the condition vector [values] which [are] is equal to the predetermined value, calculating an absolute index indicative of a position of the value in the group within an output vector, the absolute index [value] corresponding to the condition [vector] value and the running index; and

including each of the values within the group in an output vector corresponding to [the] condition vector values equaling the predetermined value, at respective positions denoted by the absolute indices.

28. (Once amended) The method of claim 7 [wherein] further comprising:

calculating [the] a partial [indices includes performing] index using a parallel prefix scan-+ operation; and  
adding the partial index to the running index, the running index corresponding to the condition value.

8  
14. (Once amended) [The] A method of [claim 1,] performing a conditional vector